REMARKS

The Office Action of May 17, 2004 designated as FINAL was received and carefully reviewed. Applicants hereby file simultaneously herewith a Request for Continued Examination (RCE) in order to effect entry of the instant Preliminary Amendment, as well as an accompanying Information Disclosure Statement (IDS).

Claims 1, 3-6, 8-13, 15-18, 20-23 and 25-27 were pending in the instant application. By this amendment, Applicants hereby amend claims 1, 6, 11, 18 and 23, and add new claims 41-56 to more completely set forth the scope of the invention. Examination on the merits is respectfully requested. As a result, claims 1, 3-6, 8-13, 15-18, 20-23 and 25-27 and 41-45 are currently pending in the instant application, of which claims 1, 6, 11, 18, 23, 45, 49, and 53 are independent.

Claims 1, 3, 6, 8, 11-13, 18, 20, 23, and 25 are rejected under 35 U.S.C. 102(b) over Tanabe et al., and claims 4, 5, 9, 10, 16, 17, 21, 22, 26 and 27 are rejected under 35 U.S.C. 102(b) or in the alternative under 35 U.S.C. 103(c) over Tanabe et al. 103(c), as applied to claims 1, 3, 6, 8, 11-13, 18, 20, 23, and 25. These rejections are traversed for the reasons advanced in below.

The present invention is directed to a semiconductor device (claim 1) including a semiconductor layer having a crystalline structure on an insulating surface wherein the semiconductor layer includes at least a source, a drain and a channel region. The channel region includes a rare gas element having a concentration gradient. The channel region further has at least a first portion and a second portion where the second portion is more distant from the insulating surface than the first portion. Further, the crystallinity of the first portion in the channel region is higher than that of the second portion in the channel region. The device may also include a first and a second semiconductor layer where the second semiconductor layer includes the rare earth element having a concentration gradient and the first semiconductor layer has a higher concentration than the second semiconductor layer (claim 11).

Independent claims 1, 6, 18 and 23 are amended to recite that the crystallinity of the first portion in the channel region is higher than that of the second portion in the channel region, which is supported in the specification, for example, on page 5, line 19. Independent

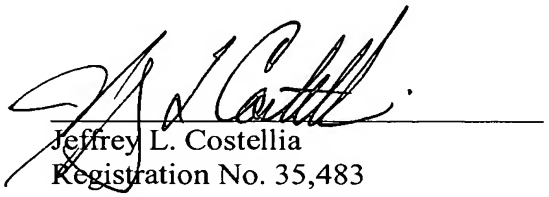
claim 11 is amended to recite that the crystallinity of the first semiconductor layer is higher than that of the second semiconductor layer, which is supported by the specification, for example, also on page 5, line 19.

Tanabe et al. does not appear to teach or suggest these features of the invention. As a result, the rejections of the claims under Sections 102 and 103 are not complete since each and every feature is not taught or suggested by the cited patent. As a result, reconsideration and withdrawal of these rejections are respectfully requested.

New claims 41-56 are added to recite additional features of the present invention to which Applicants are entitled. Specifically, independent claims are added to recite that the rare gas element is contained in a bottom gate type (inverted stagger type) TFT. This feature is supported by the specification, for example, on page 12, line 14. Consideration and allowance of these claims are also respectfully requested.

If a conference would expedite prosecution of the instant application, the Examiner is hereby invited to telephone the undersigned to arrange such a conference.

Respectfully submitted,



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